

We Claim

1. An apparatus comprising an arrayed solid surface; said solid surface comprising a plurality of addressable target molecules; said solid surface in contact with a cellular product.

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2. The apparatus of Claim 1; wherein said target molecules are selected from the group consisting of natural or synthetic oligonucleotides, viruses, polypeptides, antibodies, naturally occurring drugs, synthetic drugs, pollutants, allergens, effector molecules, growth factors, chemokines, nucleic acids, cytokines, and lymphokines.

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3. The apparatus of Claim 1; wherein said plurality of target molecules are selected from group consisting of cell initiation molecules, cell differentiation molecules, cell morphogenesis molecules, and cell maintenance molecules.

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4. The apparatus of Claim 1; wherein said cellular product is selected from the group consisting of whole cell solutions, lysed cell solutions, and subcellular compartment solutions.

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5. The apparatus of Claim 1; wherein said cellular product comprises a cellular mixture; said cellular mixture comprising combinations of whole cell solutions, lysed cell solutions, or subcellular compartment solutions.

6. The apparatus of Claim 1; wherein said cellular product is selected from the group consisting of whole stem cell solutions and lysed stem cell solutions.

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7. The apparatus of Claim 1; wherein said solid surface is configured for label free detection.

8. The apparatus of Claim 1; wherein said solid surface is an SPR surface.

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9. The apparatus of Claim 1; wherein said solid surface further comprises a plurality of microfluidics channels.
10. The apparatus of Claim 1; wherein said plurality of target molecules comprises at least 2 unique target molecules.
11. The apparatus of Claim 1; wherein said plurality of target molecules comprises at least 50 unique target molecules.
- 10 12. The apparatus of Claim 1; wherein said plurality of target molecules comprises between 10 and 10000 unique target molecules.
13. A method of identifying molecules that interact with a cell component, comprising:
a) providing
15 i) an arrayed solid surface, said solid surface comprising an array of addressable target molecules; and
 ii) a cellular product; and
b) contacting said cellular product with said arrayed solid surface.
- 20 14. A system comprising an arrayed solid surface, said solid surface comprising a plurality of addressable target molecules; a cellular product, said cellular product in contact with said arrayed solid surface.
15. The system of Claim 14; further comprising a detection apparatus; said detection 25 apparatus configured to detect the presence or absence of an interaction between said cellular product and said target molecules.
16. The system of Claim 14; further comprising an instruction manual.
- 30 17. A compound, produced by the process comprising:
a. providing
 i. a solid surface, said solid surface comprising an array of addressable putative signal molecules;

- ii. a cellular product; and
- b. contacting said solid surface with said cellular product.
- c. identifying said putative signal molecule.